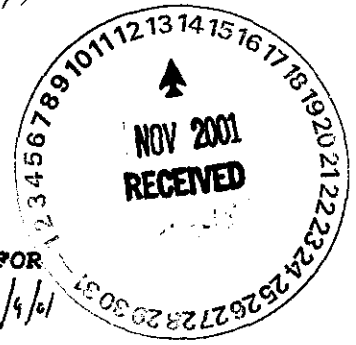


0057233

H1554



Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B01-114 H1551

DATE RECEIVED: 10/20/01

LVL LOT # :0110L153

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B13510	001	W	01LVX454	10/15/01	N/A	10/23/01
B13510	001 MS	W	01LVX454	10/15/01	N/A	10/23/01
B13510	001 MSD	W	01LVX454	10/15/01	N/A	10/23/01
B13511	002	W	01LVX454	10/18/01	N/A	10/23/01
B13511	002 R1	W	01LVX456	10/18/01	N/A	10/24/01

LAB QC:

VBLKWU	MB1	W	01LVX454	N/A	N/A	10/23/01
VBLKWU	MB1 BS	W	01LVX454	N/A	N/A	10/23/01
VBLKWW	MB1	W	01LVX456	N/A	N/A	10/24/01

RECEIVED
JUN 10 2002

EDMC

11-06-01



Client: TNU-HANFORD B01-114

LVL #: 0110L153

SDG/SAF #: H1551/B01-114

GC/MS VOLATILE

W.O. #: 11343-606-001-9999-00

Date Received: 10-20-2001

Two (2) water samples were collected on 10-15,18-2001.

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on SW 846 Method 8260B for client specified Volatile target compounds on 10-23,24-2001.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The cooler temperature upon receipt has been recorded on the chain-of-custody.
2. Samples were analyzed within required holding time.
3. Non-target compounds were not detected in the samples.
4. All surrogate recoveries were within EPA QC limits.
5. All matrix spike recoveries were within EPA QC limits.
6. All blank spike recoveries were within EPA QC limits.
7. The method blanks contained the common laboratory contaminants Methylene Chloride and/or Acetone at levels less than the CRQL.
8. Internal standard area criteria were not met for sample B13511. The sample was reanalyzed on 10-24-2001 and reported.
9. "I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."


J. Michael Taylor

President

Lionville Laboratory Incorporated

11/7/01
Date

som\group\data\voa\tnu-hanford\0110-153.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 1 3 pages.

GLOSSARY OF VOA DATA

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Suffix added to sample number to indicate that results are from a diluted analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
SP, Z	=	Indicates Spiked Compound.

GLOSSARY OF VOA DATA

DATA QUALIFIERS

- U** = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J** = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- D** = Identifies all compounds identified in an analysis at a secondary dilution factor.
- I** = Interference.
- NQ** = Result qualitatively confirmed but not able to quantify.
- N** = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- X** = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).
- Y** = Additional qualifiers used as required are explained in the case narrative.

TECHNICAL FLAGS FOR MANUAL INTEGRATION

Manual quan modifications or integrations are performed routinely to improve the data quality for a variety of technical reasons. Documentation of these modifications should be clear and concise. The following "flags" are used to indicate the technical reasons for quan modifications:

- MP** - Missed Peak: manually added peak not found by automatic quan program.
- PA** - Peak Assignment: quan report was changed to reflect correct peak assignment.
- RI** - Routine Integration: routine integrations are performed for some analytes that are consistently integrated improperly by the automatic integration programs. Examples are the dichlorobenzene isomers on the VOA packed column and benzo(b)fluoranthene/benzo(k)fluoranthene which are poorly resolved on the BNA column.
- SP** - Split Peak: the automatic integration improperly split the peak; a manual integration was performed to get the correct area.
- CB** - Coelution/Background: peak was manually integrated to eliminate contribution from coeluting compounds, background signal, or other interference.
- PI** - Proper Integration: a peak with poor or inconsistent integration (e.g., excessive tail) was properly integrated manually.

Lionville Laboratory, Inc.

Volatiles By GC/MS, Special List

Report Date: 11/06/01 15:24

RFW Batch Number: 0110L153

Client: TNOHANFORD B01-114 H1551, Work Order: 11343606001 Page: 1a

Cust ID:		B13510		B13510		B13510		B13511		B13511		VBLKWU	
Sample	RFW#:	001		001 MS		001 MSD		002		002		01LVX454-MB1	
Information	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
										REPREP			
Toluene-d8		97	%	89	%	91	%	92	%	102	%	85	%
Surrogate	Bromofluorobenzene	102	%	103	%	108	%	104	%	111	%	92	%
Recovery	1,2-Dichloroethane-d4	96	%	96	%	99	%	110	%	114	%	81	%
		fl		fl		fl		fl		fl		fl	
Chloromethane		10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane		10	U	10	U	10	U	10	U	10	U	10	U
Vinyl Chloride		10	U	10	U	10	U	10	U	10	U	10	U
Chloroethane		10	U	10	U	10	U	10	U	10	U	10	U
Methylene Chloride		5	U	5	U	5	U	5	U	5	U	5	U
Acetone		10	U	10	U	10	U	10	U	10	U	2	J
Carbon Disulfide		5	U	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene		5	U	88	%	89	%	5	U	5	U	5	U
1,1-Dichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)		5	U	5	U	5	U	5	U	5	U	5	U
Chloroform		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
2-Butanone		10	U	10	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Carbon Tetrachloride		5	U	5	U	5	U	5	U	5	U	5	U
Bromodichloromethane		5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dichloropropane		5	U	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene		5	U	5	U	5	U	5	U	5	U	5	U
Trichloroethene		5	U	95	%	99	%	5	U	5	U	5	U
Dibromochloromethane		5	U	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Benzene		5	U	93	%	95	%	5	U	5	U	5	U
Trans-1,3-Dichloropropene		5	U	5	U	5	U	5	U	5	U	5	U
Bromoform		5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone		10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone		10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene		5	U	5	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane		5	U	5	U	5	U	5	U	5	U	5	U
Toluene		5	U	89	%	91	%	5	U	5	U	5	U

* = Outside of EPA CLP QC limits.

Cust ID: B13510 B13510 B13510 B13511 B13511 VBLKWU

RFW#: 001 001 MS 001 MSD 002 002 01LVX454-MB1

REPREP

Chlorobenzene	5 U	95 %	96 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	5 U	5 U	5 U	5 U	5 U	5 U
N-butylbenzene	5 U	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

Work Order: 11343606001 Page: 2a

VBLKWW

RFW#:	01LVX454-MB1	01LVX456-MB1
Matrix:	WATER	WATER
D.F.:	1.00	1.00
Units:	ug/L	ug/L

Surrogate	Toluene-d8	96 %	92 %
Recovery	Bromofluorobenzene	105 %	97 %
	1,2-Dichloroethane-d4	90 %	96 %
Chloromethane	10 U	10 U	
Bromomethane	10 U	10 U	
Vinyl Chloride	10 U	10 U	
Chloroethane	10 U	10 U	
Methylene Chloride	5 U	2 J	
Acetone	2 BJ	2 J	
Carbon Disulfide	5 U	5 U	
1,1-Dichloroethene	97 %	5 U	
1,1-Dichloroethane	5 U	5 U	
1,2-Dichloroethene (total)	5 U	5 U	
Chloroform	5 U	5 U	
1,2-Dichloroethane	5 U	5 U	
2-Butanone	10 U	10 U	
1,1,1-Trichloroethane	5 U	5 U	
Carbon Tetrachloride	5 U	5 U	
Bromodichloromethane	5 U	5 U	
1,2-Dichloropropane	5 U	5 U	
cis-1,3-Dichloropropene	5 U	5 U	
Trichloroethene	105 %	5 U	
Dibromochloromethane	5 U	5 U	
1,1,2-Trichloroethane	5 U	5 U	
Benzene	96 %	5 U	
Trans-1,3-Dichloropropene	5 U	5 U	
Bromoform	5 U	5 U	
4-Methyl-2-pentanone	10 U	10 U	
2-Hexanone	10 U	10 U	
Tetrachloroethene	5 U	5 U	
1,1,2,2-Tetrachloroethane	5 U	5 U	
Toluene	93 %	5 U	

*= Outside of EPA CLP OC limits.

Cust ID: VBLKWU BS VBLKWW

H1554 62g 11/9/01

RFW#: 01LVX454-MB1 01LVX456-MB1

Chlorobenzene	99	%	5	U
Ethylbenzene	5	U	5	U
Styrene	5	U	5	U
Xylene (total)	5	U	5	U
N-butylbenzene	5	U	5	U

*= Outside of EPA CLP QC limits.

Ad

4235 7954 8,55

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B01-114-23		Page 1 of 1	
Collector Renee Nielson		Company Contact Virginia Rohay		Telephone No. 372-9100		Project Coordinator TRENT, SJ		Price Code 7N Data Turnaround	
Project Designation PFP Well Installation Sampling and Analysis - Water		Sampling Location 200 West; Well 299-W15-764		SAF No. B01-114		Air Quality <input type="checkbox"/>		45 Days	
Ice Chest No. ERC-96-044		Field Logbook No. EL-1562		COA T20ZP1D722		Method of Shipment Federal Express			
Shipped To TMA/RECRA		Offsite Property No. A020021				Bill of Lading/Air Bill No. 42357954-8755			
POSSIBLE SAMPLE HAZARDS/REMARKS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. RT10-19-01					Preservation		HCl to pH < 2 Cool 4C		
					Type of Container		sgs*		
					No. of Container(s)		3		
					Volume		40mL		
SAMPLE ANALYSIS					VOA - E260A (TCL); VOA - E260A (Add-On) (n-Butylbenzene)				
Sample No.	Matrix *	Sample Date	Sample Time						
B13511	WATER	10/18/01	1710	X					
CHAIN OF POSSESSION					SPECIAL INSTRUCTIONS				
Relinquished By: <u>Renee Nielson</u> Date/Time: <u>10/19/01 0430</u>		Received By: <u>Ref # 2C</u> Date/Time: <u>10/18/01 0430</u>			Samples stored in Ref. #21 at the 3728 Shipping Facility on 10/18/01. Collector not available to relinquish samples on 10/19/01 for shipment. RT10-19-01				
Relinquished By: <u>Removed</u> Date/Time: <u>0900</u>		Received By: <u>R. Thoren</u> Date/Time: <u>0900</u>							
Relinquished By: <u>R. Thoren</u> Date/Time: <u>0900</u>		Received By: <u>FEDEx</u> Date/Time: <u>10-19-01</u>							
Relinquished By: <u>Ref Ex</u> Date/Time: <u>10.20.01 10:20</u>		Received By: <u>D. Spind</u> Date/Time: <u>10.20.01 10:20</u>							
Relinquished By: <u> </u> Date/Time: <u> </u>		Received By: <u> </u> Date/Time: <u> </u>							
LABORATORY SECTION Received By: _____ Title: _____ Date/Time: _____					FINAL SAMPLE DISPOSITION Disposal Method: _____ Disposed By: _____ Date/Time: _____				

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B01-114-22		Page 1 of 2																					
Collector Renee Nielson		Company Contact Virginia Rohay		Telephone No. 372-9100		Project Coordinator TRENT, SJ		Price Code 7N Data Turnaround 45 Days																					
Project Designation PFP Well Installation Sampling and Analysis - Water		Sampling Location 200 West, Well 299-W15-764		17 RW 10/18/01		SAF No. B01-114		Air Quality <input type="checkbox"/>																					
Ice Chest No. EPC 96.044		Field Logbook No. EL-1562		COA T202P1D722		Method of Shipment Federal Express																							
Shipped To TMA/RECRA		Offsite Property No. 1402 RT 10.19.01		RT 10.19.01		Bill of Lading/Air Bill No. 42367954-8/55																							
POSSIBLE SAMPLE HAZARDS/REMARKS Samples stored in Ref. # 2 at the 3728 Shipping Facility on 10/15/01. Collector not available to relinquish samples on 10/19/01 for shipment. RT 10.19.01				Preservation		HCl to pH < 2 Cool 4C																							
				Type of Container		aGs*																							
				No. of Container(s)		3																							
				Volume		40mL																							
						VOA - E260A (TCL); VOA - E260A (Add-On) (n-Butylbenzene)																							
Sample No.	Matrix *	Sample Date	Sample Time																										
B13510	WATER	10/15/01	1655	X																									
<div style="display: flex; justify-content: space-between;"> <div> CHAIN OF POSSESSION <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Relinquished By Renee Nielson</td> <td>Date/Time 10/16/01 0345</td> <td>Received By Renee Nielson</td> <td>Date/Time 10/16/01 0345</td> </tr> <tr> <td>Relinquished By Renee Nielson</td> <td>Date/Time 10/17/01 0430</td> <td>Received By Renee Nielson</td> <td>Date/Time 10/17/01 0430</td> </tr> <tr> <td>Relinquished By Renee Nielson</td> <td>Date/Time 10/17/01 1650</td> <td>Received By Renee Nielson</td> <td>Date/Time 10/17/01 1650</td> </tr> <tr> <td>Relinquished By Renee Nielson</td> <td>Date/Time 10/18/01 0435</td> <td>Received By Renee Nielson</td> <td>Date/Time 10/18/01 0435</td> </tr> <tr> <td>Relinquished By Renee Nielson</td> <td>Date/Time 10/18/01 0900</td> <td>Received By Renee Nielson</td> <td>Date/Time 10/18/01 0900</td> </tr> </table> </div> <div> SPECIAL INSTRUCTIONS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. RT 10.19.01 See page 2 of 2 for Chain of Possession Continuation </div> <div> Matrix * S-Soil SD-Sediment SO-Solid W-Water O-Oil A-Air DS-Drum Solid DL-Drum Liquid T-Tissue WP-Wipe L-Liquid V-Vegetation O-Other </div> </div>										Relinquished By Renee Nielson	Date/Time 10/16/01 0345	Received By Renee Nielson	Date/Time 10/16/01 0345	Relinquished By Renee Nielson	Date/Time 10/17/01 0430	Received By Renee Nielson	Date/Time 10/17/01 0430	Relinquished By Renee Nielson	Date/Time 10/17/01 1650	Received By Renee Nielson	Date/Time 10/17/01 1650	Relinquished By Renee Nielson	Date/Time 10/18/01 0435	Received By Renee Nielson	Date/Time 10/18/01 0435	Relinquished By Renee Nielson	Date/Time 10/18/01 0900	Received By Renee Nielson	Date/Time 10/18/01 0900
Relinquished By Renee Nielson	Date/Time 10/16/01 0345	Received By Renee Nielson	Date/Time 10/16/01 0345																										
Relinquished By Renee Nielson	Date/Time 10/17/01 0430	Received By Renee Nielson	Date/Time 10/17/01 0430																										
Relinquished By Renee Nielson	Date/Time 10/17/01 1650	Received By Renee Nielson	Date/Time 10/17/01 1650																										
Relinquished By Renee Nielson	Date/Time 10/18/01 0435	Received By Renee Nielson	Date/Time 10/18/01 0435																										
Relinquished By Renee Nielson	Date/Time 10/18/01 0900	Received By Renee Nielson	Date/Time 10/18/01 0900																										
LABORATORY SECTION	Received By Relg. By. C. Ted Ex. 10:20	Date/Time 10/20/01 10:20				Disposed By D. J. Miller																							
FINAL SAMPLE DISPOSITION	Disposal Method	Date/Time				Disposed By Date/Time																							

BOI-114-22 20fz 11
 RT-B00-050-02 Per 1-1-1 RT 10-19-0

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		Project Coordinator T. PATS J SAE No. BOI-114		Price Code NA Data Turnaround NA	
Collector Renee Nielson		Company Contact Virginia Rohay 372-9100		Sampling Location 200 West Well 299-WIS-764		Air Quality <input type="checkbox"/> NA	
Project Designation PFP Well Installation		Field Logbook No. FL-1562		COA T202PID722		Method of Shipment FED EX	
Ice Chest No. ERC 916-044		Shipped To Recra		Office Property No. A 020021		Bill of Lading/Air Bill No. 42657954-8155	

Special Handling and/or Storage				Preservation																
				Type of Container																
				No. of Container(s)																
				Volume																
SAMPLE ANALYSIS				N/A																
Sample No.	Matrix *	Sample Date	Sample Time																	
B13510	WATER	10-15-01	11:55																	

CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *							
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		CHAIN OF POSSESSION CONTINUATION PAGE				S-Sediment SO-Solid W-Water O-Oil A-Air DS-Dry Solid DL-Dry Liquid T-Tissue W-Waste L-Liquid V-Vegetation X-Other			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time									
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time									
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time									
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time									

LABORATORY SECTION	Received By	Title		Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By		Date/Time